

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed December 22, 2004. Upon entry of the amendments in this response, claims 1 – 3, 5 – 11 and 13 - 16 remain pending. In particular, Applicant has amended claims 1 and 9, and has canceled claims 4 and 12 without waiver, disclaimer or prejudice. Applicant has canceled claims 4 and 12 merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicant reserves the right to pursue the subject matter of these canceled claims in a continuing application, if Applicant so chooses, and does not intend to dedicate the canceled subject matter to the public. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

In the Drawings

The Office Action indicates that the drawings are objected to under 37 CFR 1.83(a), in that all the features recited in the claims are not shown. In this regard, Applicant submits herewith replacement drawing sheets, including a new Fig 3. Applicant respectfully asserts that no new matter has been added by the addition of this drawing (as all features shown are described in the specification) and that the objection has been accommodated.

Rejections under 35 U.S.C. 102

The Office Action indicates that claims 1, 2, 4 and 21 - 23 are rejected under 35 U.S.C 102 as being anticipated by *Li*. Applicant respectfully traverses the rejection.

In the Drawings

Applicant submits herewith replacement drawing sheets, including a new Fig 3.

In particular, Applicant has amended claim 1 to include the limitations previously recited in claim 4. Thus, claim 1 recites:

1. A system for equipment malfunction detection and diagnosis, comprising:
equipment to process semiconductor work pieces and transfer status
information thereof at preset intervals;
a detection/diagnosis unit coupled to the equipment to receive the status
information, check whether the status information conforms to a
process control standard, and if not, determine that the equipment
has a malfunction; and
***a diagnostic database storing at least a recovery measure for the
malfunction,***
wherein the recovery measure is retrieved by the detection/diagnosis unit if
the equipment malfunctions.

(Emphasis Added).

Applicant respectfully asserts that *Li* is deficient for the purpose of anticipating claim 1, because at least the features/limitations emphasized above in claim 1 are not taught or otherwise disclosed by *Li*. (See, for example, admission in Office Action at page 5). Therefore, Applicant respectfully requests that the rejection of claim 1 be removed. Since claims 2, 3 and 5 – 8 are dependent claims that incorporate the limitations of claim 1, Applicant respectfully asserts that the rejection of these claims also is improper and requests that the rejection be removed.

With respect to claim 9, that claim has been amended to recite:

9. A method for equipment malfunction detection and diagnosis, comprising
the steps of:
processing semiconductor work pieces on equipment;
transferring status information of the equipment at preset intervals to a
detection/diagnosis unit;
checking whether the status information conforms to a process control
standard, and if not, determining that the equipment has a
malfunction; and
***retrieving a recovery measure for the malfunction from a diagnostic
database by the detection/diagnosis unit.***

(Emphasis Added).

Applicant respectfully asserts that *Li* is deficient for the purpose of anticipating claim 9, because at least the features/limitations emphasized above in claim 9 are not taught or otherwise disclosed by *Li*. (*See*, for example, admission in Office Action at page 5). Therefore, Applicant respectfully requests that the rejection of claim 9 be removed. Since claims 10, 11 and 13 - 16 are dependent claims that incorporate the limitations of claim 9, Applicant respectfully asserts that the rejection of these claims also is improper and requests that the rejection be removed.

Rejections under 35 U.S.C. 103

The Office Action indicates that claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Li* in view of *Schleiss*. With respect to claims 4 and 12, Applicant has canceled these claims and respectfully asserts that the rejection as to these claims has been rendered moot. However, since the limitations of claims 4 and 12 are incorporated into independent claims 1 and 9, respectively, Applicant respectfully traverses the rejection with respect to these claims for at least the following three separate grounds.

First, Applicant respectfully asserts that *Schleiss* may not be properly combined with *Li* for the purpose of rejecting the pending claims. In particular, in accordance with MPEP 2141.01(a), in order to rely on a reference under 35 U.S.C. 103, it must be analogous art. In this case, *Schleiss* involves detection, analysis and correction of problems in chemical and petroleum processes. Applicant's invention, however, involves the field of semiconductors, in which equipment malfunctions are detected based on status information received from the semiconductor equipment. Notably, the classification fields of *Li* and *Schleiss* are markedly different. Therefore, Applicant respectfully asserts that *Schleiss* may not be properly combined

with *Li* for the purpose of rejecting the pending claims, because *Schleiss* is nonanalogous art.

Second, MPEP 2143.01 also requires that the prior art must suggest the desirability of the claimed invention. Since *Li* and *Schleiss* are from such technologically distinct fields, there is no suggestion (express or implied) that these references can be combined, much less in the manner alleged in the Office Action.

Third, since the semiconductor field is a crowded art, Applicant respectfully asserts that the differences between the claimed invention and the prior art are substantial enough to justify a finding of patentability. That is, automatically providing a recovery measure for the malfunction of semiconductor equipment as recited in the pending claims should be regarded as a patentably significant.

Based on the foregoing, Applicant respectfully requests that independent claims 1 and 9, and their respective dependent claims, be placed in condition for allowance.

Cited Art of Record

The cited art of record has been considered, but is not believed to affect the patentability of the presently pending claims.

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

No fee is believed to be due in connection with this Amendment and Response. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 20-0778.

Respectfully submitted,

By:


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